Region 1 FY 2015 Invasive Species Control Program Proposal

Refuge/complex name: Baskett Slough NWR/Willamette Valley NWRC

Project title: Oregon White Oak Restoration- North Butte

Total amount requested: $30,500

Project description: The Willamette Valley National Wildlife Refuge Complex (WVNWRC) holds some of the largest and best examples of Oregon white oak habitat remaining in the Valley. Within oak habitats, Douglas-fir is considered highly invasive and detrimental to both oaks and the associated savanna understory. The proposed project is to conduct oak restoration through removal of Douglas fir and smaller Oregon white oak to return it to a functioning oak savanna. Other species targeted for removal would be bitter cherry and English holly. Several areas of Baskett Slough's North Butte are in varying degrees of restoration. By restoring another 18 acres of oak habitats, an additional corridor would be created with the ability to connect intact prairies occupied by Fender's blue butterfly between the refuge and the adjacent Nature Conservancy property to the south and east of the refuge. Improved connectivity would allow newly discovered lupine patches to be accessible to pollinators, including the Fender's blue butterfly. Newly populated butterfly areas to the north would be better connected to existing areas on and off refuge, increasing genetic diversity of this rare species.

This project would be similar to last year's fir removal on Finley by utilizing a highly effective mechanized feller-buncher harvester via private contract (prior fir removal has been dominantly by hand felling). Post-harvest site treatment would be conducted through a stewardship arrangement with long term maintenance conducted by refuge staff.

When extracted, a percentage of the larger logs will be made available for in-stream restoration projects. Local watershed councils will use these logs to make significant contributions to anadromous fish, water quality, and watershed health.

Comment [BF1]: Awesome!

Distinct project with well-defined objectives (10 points): This project is supported in the CCP by Goal 4: Protect, maintain, enhance and restore the native upland prairie/oak savanna habitats characteristic of the historic Willamette Valley, with an emphasis on management for rare and listed species. Objective 4a: Protect and maintain mid-late successional oak savanna/upland prairie on Baskett Slough NWR for the benefit of the Fender's blue butterfly. Long term, this project could contribute to Goal 9, Objective 9d: Maintain, protect, restore populations of federally listed prairie plant species including Willamette daisy, Kincaid's lupine and golden paintbrush. It would also correlate directly to recovery actions identified in the Recovery Plan for the Prairie Species of Western Oregon and SW Washington as well as compliment work done previously through the Cooperative Recovery Initiative in partnership with TNC and Partners for Fish and Wildlife programs.

Potential for maximum control/Likelihood of success (10 points): Control in the 18 acre project area will be achieved at the end of the harvest period in 2015 and will result in eradication of Douglas fir on approximately 70 acres of North Baskett Butte.

Biological benefit to priority species or BIDEH (10 points):
Baskett Slough NWR was established in part to conserve and protect migratory birds, and specifically the uplands for wildlife habitat and watershed protection. In the Willamette Valley, Oregon white oak habitat (both woodland and savannah) has declined dramatically since pre-settlement conditions, such that 90% has been lost to several causes, with the largest being forest succession by invading Douglas-fir. The oak overstory is considered vital habitat for many migratory birds including FWS Species of Concern. Baskett Butte has intact upland prairie remnants under the oaks, and hosts the endangered Fender's blue butterfly and three listed plants. This proposal will result in significant improvement of the quality of oak savanna/upland prairie and promote healthy populations of listed species as the refuge works towards recovery plan goals.

Comment [BF2]: Yes! This is the kind of direct connection I am looking for.

Sustainability (10 points): The desired future condition will be an open corridor containing mature oaks with an herbaceous understory creating ideal habitat for oak dependent species. The understory will be maintained with periodic mowing, preventing establishment of seedling fir from re-invasion. This will be accomplished on a 1-2 year interval under normal refuge operations.
In addition to refuge lands, extraction has also taken place on approximately 35 acres near the refuge boundary. With similar oak and prairie habitat, the adjacent lands are covered by an NRCS conservation easement and a Partner's for Fish and Wildlife Agreement. Collective management will make a contiguous block of habitat and be more effective towards recovery of all the prairie species.

Monitoring to document and evaluate project success (10 points):
Project success will be measured by the changes in conifer crown vegetation, with a goal of zero conifer canopy coverage in the treatment area. To detect significant herbaceous invasives and response of remnant prairie plants within openings, vegetative plant community monitoring is planned for the 2nd year following treatment. This area will also be monitored for possible movements of butterflies during subsequent flight periods.

Budget:

Mechanical forestry equipment	$22,000
In-house FWS expenditures (planning, layout, contract admin, pile burning, maintenance mowing)	7,000
Native seed/seeding	1,500
Total	$30,500

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